

INTERNATIONAL SEARCH REPORT

International Application No
PCT/IB2004/051158

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|-------------------------------------|-----------------|-----------|----------|-----------|
| A. CLASSIFICATION OF SUBJECT MATTER | IPC 7 G02B26/02 | G02B27/09 | G02B3/14 | G11B7/135 |
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According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 G02B G11B

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

| Category * | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
|------------|--|-----------------------|
| X | US 6 288 846 B1 (STONER, JR. JOHN O) 11 September 2001 (2001-09-11) column 6, line 55 - column 8, line 32; figures 1-5 ----- | 1-14 |
| X | US 2002/090168 A1 (BARTELS FRANK) 11 July 2002 (2002-07-11) paragraph '0033! - paragraph '0036! paragraph '0063! figure 2 ----- | 1-7, 11, 12 |
| X | WO 03/034748 A (KONINKLIJKE PHILIPS ELECTRONICS N.V) 24 April 2003 (2003-04-24) page 3, line 1 - line 32; figure 1 ----- -/- | 1-7, 11, 12 |

Further documents are listed in the continuation of box C.

Patent family members are listed in annex.

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Date of the actual completion of the international search

28 April 2005

Date of mailing of the international search report

06/05/2005

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

| Category * | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
|------------|--|-----------------------|
| A | US 6 369 954 B1 (BERGE BRUNO ET AL) 9 April 2002 (2002-04-09) column 5, line 28 - line 64; figure 6 ----- | 1-14 |
| A | US 5 864 128 A (PLESKO ET AL) 26 January 1999 (1999-01-26) column 10, line 65 - column 13, line 32; figures 18,19,21 ----- | 1-14 |
| A | WO 02/069016 A (LIGHTWAVE MICROSYSTEMS CORPORATION) 6 September 2002 (2002-09-06) cited in the application ----- | 1-14 |

INTERNATIONAL SEARCH REPORT

Information on patent family members

| | |
|--|--|
| International Application No PCT/IB2004/051158 | |
|--|--|

| Patent document cited in search report | Publication date | | Patent family member(s) | Publication date |
|--|------------------|------------|--|--|
| US 6288846 | B1 | 11-09-2001 | AU WO | 1254601 A 0122148 A1 24-04-2001 29-03-2001 |
| US 2002090168 | A1 | 11-07-2002 | DE AU DE WO EP EP US | 29814622 U1 3409699 A 19910375 A1 9946624 A1 1477839 A2 1062537 A1 6408112 B1 08-04-1999 27-09-1999 23-09-1999 16-09-1999 17-11-2004 27-12-2000 18-06-2002 |
| WO 03034748 | A | 24-04-2003 | EP WO JP TW US | 1438865 A1 03034748 A1 2005506778 T 563984 Y 2003085850 A1 21-07-2004 24-04-2003 03-03-2005 21-11-2003 08-05-2003 |
| US 6369954 | B1 | 09-04-2002 | FR AT CA DE DE EP ES WO JP US | 2769375 A1 214164 T 2306249 A1 69804119 D1 69804119 T2 1019758 A1 2171041 T3 9918456 A1 2001519539 T 2005002113 A1 09-04-1999 15-03-2002 15-04-1999 11-04-2002 28-11-2002 19-07-2000 16-08-2002 15-04-1999 23-10-2001 06-01-2005 |
| US 5864128 | A | 26-01-1999 | US US US US US US CA EP JP WO US US US US | 5550367 A 5506394 A 6179444 B1 6233098 B1 5886332 A 5880452 A 2174623 A1 0725955 A1 9504398 T 9512177 A1 6118569 A 5656805 A 5932860 A 27-08-1996 09-04-1996 30-01-2001 15-05-2001 23-03-1999 09-03-1999 04-05-1995 14-08-1996 28-04-1997 04-05-1995 12-09-2000 12-08-1997 03-08-1999 |
| WO 02069016 | A | 06-09-2002 | US WO WO US | 2003012483 A1 02069016 A2 02068821 A2 2003006140 A1 16-01-2003 06-09-2002 06-09-2002 09-01-2003 |